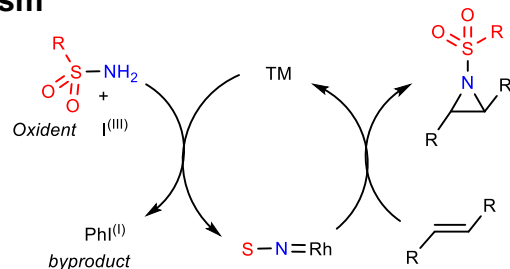


Historical Challenges of TM Catalyzed Aziridination

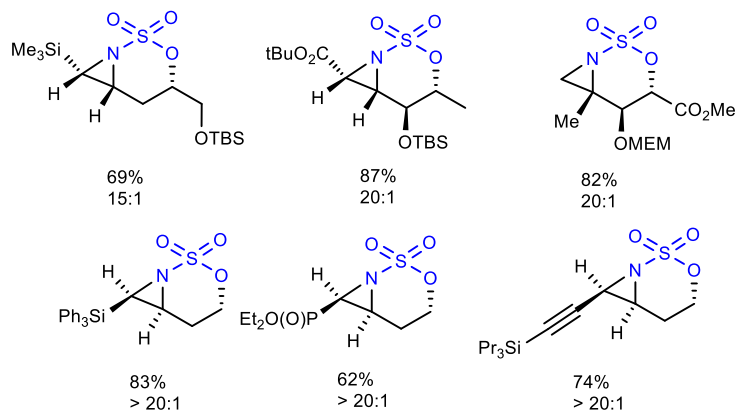
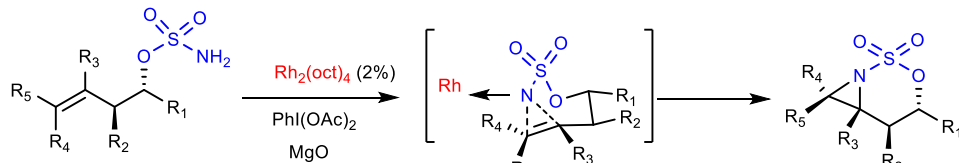
- Hard to remove protecting groups (i.e. SES or Boc) on nitrene
- Limited functional group tolerance
- Excess of olefin needed
- Long reaction times

Mechanism



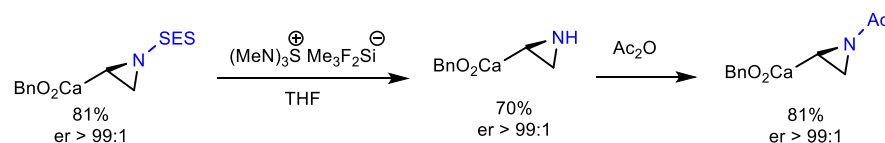
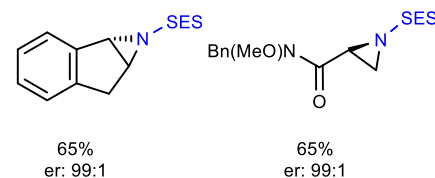
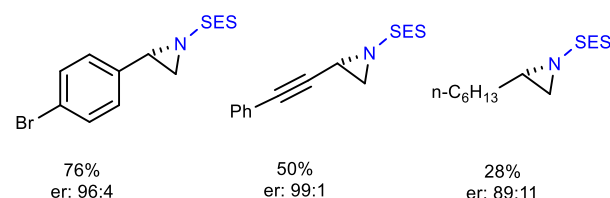
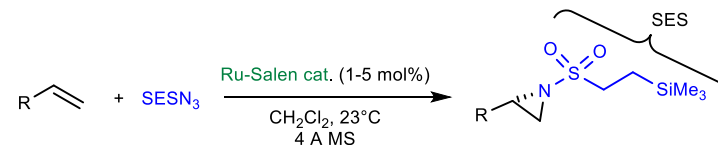
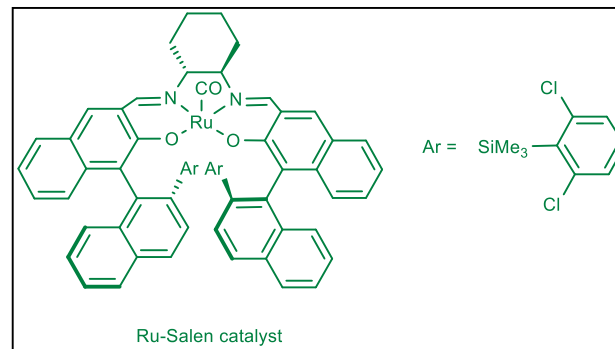
Luisi, R. *Chem. Rev.* **2014**, 114, 16, 7881 <https://doi.org/10.1021/cr400553c>

Du Bois Intramolecular Aziridination



Du Bois, J. *Tetrahedron* **2006**, 62, 11331 <https://doi.org/10.1016/j.tet.2006.07.099>

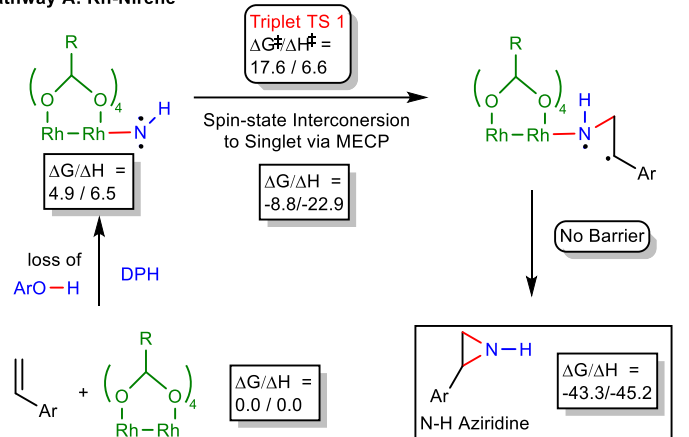
Katsuki Intermolecular Aziridination



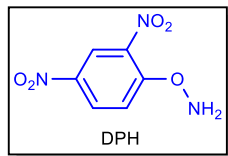
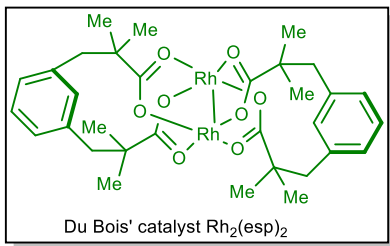
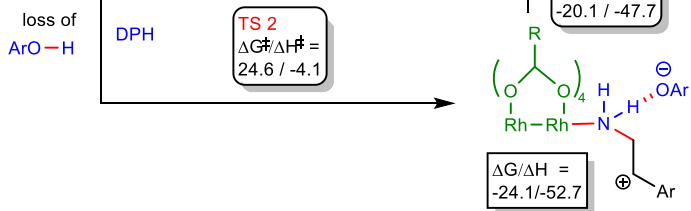
Katsuki, T. *Tetrahedron Lett.* **2006**, 47, 1571 <https://doi.org/10.1016/j.tetlet.2005.12.124>

Computation of Possible Mechanism Pathways

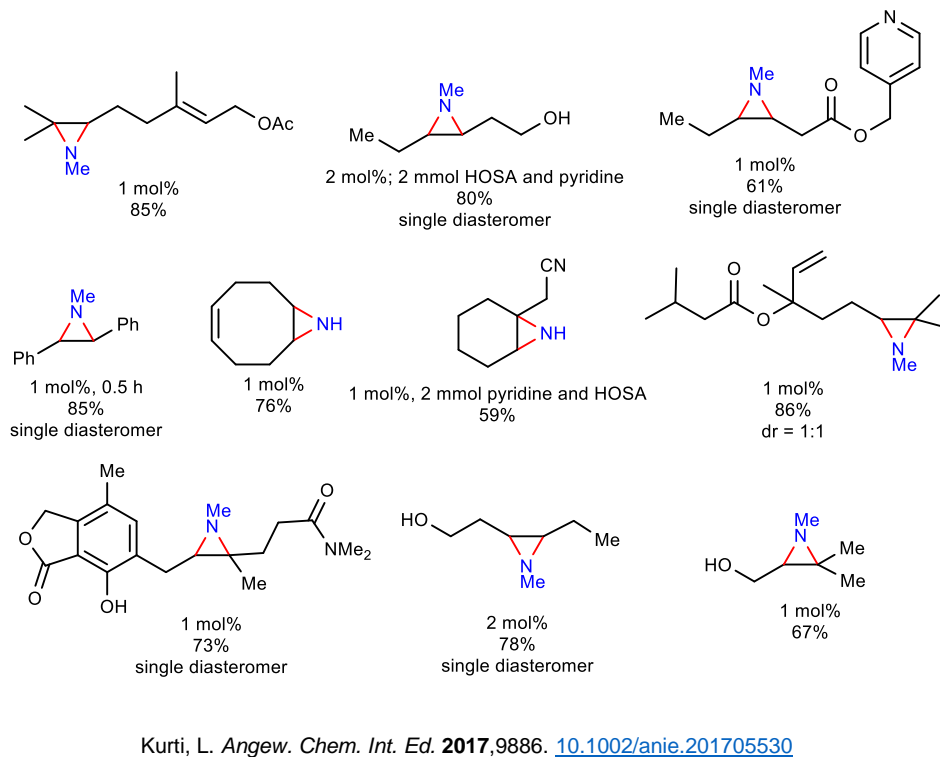
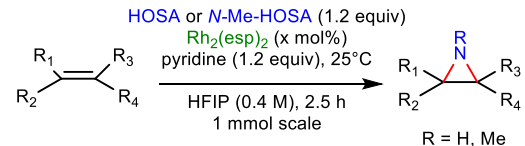
Pathway A: Rh-Nirene



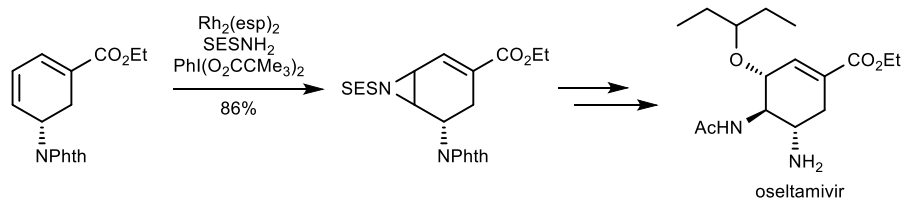
Pathway B: Rh-Amine



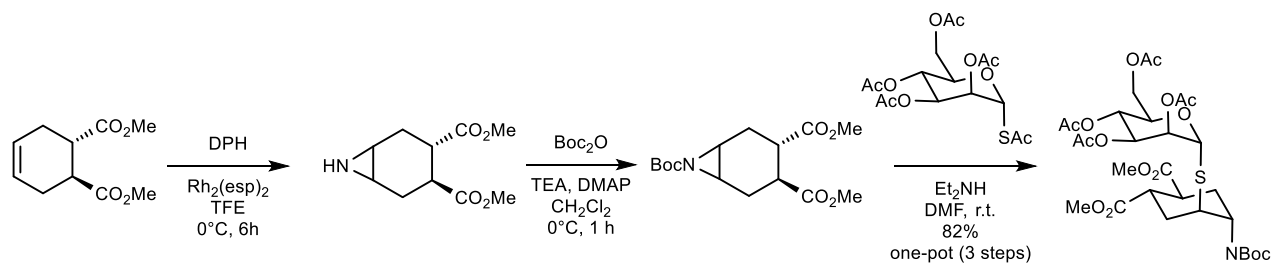
Improved Rh-Catalyzed Aziridation (Kurti)



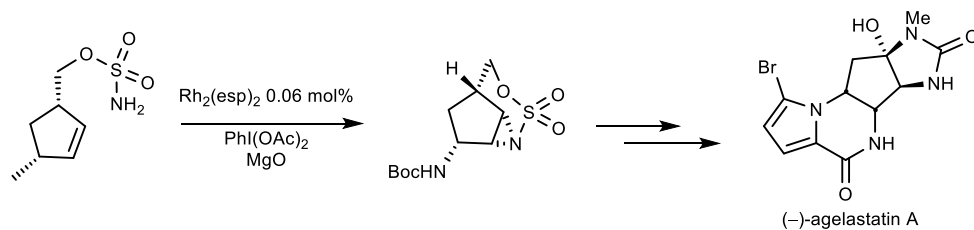
Applications in Synthesis



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Du Bois, J. *Angew. Chem. Int. Ed.* **2009**, 48, 3802 [10.1002/anie.200806292](https://doi.org/10.1002/anie.200806292)